Luis Espino - Full Stack Developer

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Education: University of California, Irvine

June 2022

B.S. in Computer Science

GPA: 3.18 (Dean's List UC Irvine • 5 quarters)

Course Work: Software Design • Game Systems and Design • Data Management • Computer Vision & Graphics

Areas of Expertise:

JavaScript Node.js **PostgreSQL** IonicJS/Angular Python C/C++ HTML5/CSS3 **Express** MySQL React AJAX/jQuery TypeScript Redis (NoSQL) WebGL Git **RESTful APIs** MongoDB (NoSQL) Bootstrap Agile/SCRUM Linux

Work Experience:

Autonomous Vehicle Operator: Zoox

October 2022-Present

Conduct **Quality Assurance Testing** on L3 autonomous vehicles, ensuring optimal performance. Execute scripts for software **deployments** on **Linux Shell** and hardware **troubleshooting** to resolve system malfunctions during testing. Maintain **communication** with engineers and **documentation** of outcomes, along with vehicle performance records.

Instructor: Juni Learning

April 2022-October 2022

Tought K 12 students computer science concents using **Duther** through engaging one on one remote concinns

Taught K-12 students computer science concepts using **Python** through engaging one-on-one remote sessions.

Office Intern: San Mateo County Health Clinic

June 2018-September 2018

Served as a professional front desk attendant and demonstrated excellence in visit facilitation, personal information updates, and administrative duties, including phone/fax management, and waiting room care.

Projects:

Spotify Browser Website

February 2022

Developed a **client-server web application** utilizing **Angular** for the **front-end** and **Node.js** for the **back-end**, facilitating seamless communication between users and the **Spotify API**.

- Implemented search functionality within the app, empowering users to effortlessly explore and discover artists, albums, and tracks by leveraging the robust features of the **Spotify API**.
- Created engaging front-end features using **HTML**, **CSS**, and **Angular** components to improve the **user experience** and interaction with the music search engine.
- Built a secure back-end API using Express.js and OAuth 2.0 protocol to handle user search requests, ensuring
 efficient and secure data retrieval from Spotify's database.
- Utilized responsive design **Bootstrap** libraries to ensure optimal performance and seamless user experience across various devices, including desktop and mobile.

Water Simulator June 2022

Developed an interactive **WebGL** animation that simulates a water pond with 3D objects that interact with it, featuring realistic lighting and visual effects.

- Introduced visual properties, (Blinn-Phong, reflection, and fresnel effect) to enhance realism on the shader.
- Adapted the simulation into a <u>webpage</u> using **JavaScript** and **HTML**, making it available for public interaction.
- Conducted in-depth research on water behavior and implemented equivalent motions in **WebGL**, resulting in an accurate and engaging simulation.

Vaccine Dash (Videogame) Website

December 2021

Collaborated on a single-player adventure horror **web game**, tasking players with finding vaccines in a dark, covid-ridden hospital.

- Orchestrated game mechanics and sensory elements (sound and graphics), optimizing the player experience.
- Designed and implemented game narrative, enhancing player immersion.
- Presented game in a mock product pitch, showcasing key features and potential for marketability.

Image Recognition Software

February 2022

Produced an **AI** algorithm that utilizes positive and negative picture samples to learn an object's Histogram of Gradient Orientations, allowing for identifying objects in images.

- Implemented the algorithm for learning an object's features from sample images.
- Composed the software on a **Jupyter** notebook utilizing **Python**, **Matplotlib**, and **Numpy** libraries, achieving a success rate of 95% in recognizing specific objects in pictures.
- Conducted extensive testing, debugging, and finalization to ensure optimal performance and functionality of the software.